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ILLINOIS BUSINESS REVIEW

A MONTHLY SUMMARY OF BUSINESS CONDITIONS FOR ILLINOIS

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HIGHLIGHTS OF BUSINESS IN JULY

The early weeks of July brought indications that the decline in business conditions during the past year may be nearing its end. Wholesale prices rallied almost uniformly in the week ended July 12, the general price level rising by 1 percent. Residential construction is up sharply, and though this is largely a seasonal movement, the number of housing starts in June represented a new all-time record for the month.

On the other side of the picture, business loans continued to decline and department store sales were down considerably. By the week ended July 16, business loans had fallen for the 26th consecutive week and at $13.0 billion were 16 percent below the peak of $15.4 billion when the decline first began. For the same week, department store sales were 10 percent below the corresponding week of last year. However, department store sales have been lagging consistently; sales of all retail stores in June were down only 1 percent from June 1948.

The President's Midyear Report

The government's intention to support the economy was reiterated by the President's midyear economic report. He abandoned his demands for tax increases and price controls, and at the same time asserted the administration's willingness to use deficit financing as a means of averting any further decline in business activity. Partly for this reason, he proposed a 9-billion-dollar public works program in the fiscal years, 1950-1951-1952. Business was urged to increase rather than decrease investment and production in order to maintain present prosperity levels, to cut prices temporarily even if at the expense of lower profit margins, and not to cut wages as a means of reducing prices. The President also recommended an easy credit policy instead of the credit controls he had asked for last January.

Wholesale Prices Rise

After falling steadily through June, wholesale prices turned up after the July 4 holiday. In the week ended July 19, the BLS index stood at 154.3 (1926 = 100), up 1% from the low but 8.6% under the week ended July 20, 1948. The more sensitive index of basic commodity prices also turned up, rising 2.2 percent during the two weeks ended July 12.

All commodity groups in the wholesale price index rose, except fuel and lighting materials, which remained unchanged. Though the main commodity groups to increase were farm products and foods, each of which rose 1.8 percent, copper and lead prices rallied strongly during this two-week period. The price of copper rose 10 percent to 17.6 cents per pound. Lead prices rose by 2.5 cents to 14 cents per pound.

Motor Vehicle and Electric Power Production at Peak

While the general level of industrial production appeared to be sinking somewhat lower, motor vehicle and electric power production constituted notable exceptions. Motor vehicle production in the week ended July 16 attained an all-time high, 148,277 units. This is over 5,000 more units than the average of 143,000 vehicles turned out weekly during April, 1929; weekly figures for that month are not available.

The electric utilities industry is one where production in 1949 has remained consistently above 1947 and 1948 levels. Though down sharply on a monthly basis because of the July 4 holiday, production of electric power in the first two weeks of July was 5 percent above the corresponding weeks of last year. In June, the margin over last year had been only 3 to 4 percent.

Housing Starts at New High

Construction was begun on 100,000 new permanent nonfarm dwelling units in June. This is only 300 below the all-time high attained in May, 1948. It exceeds the number of housing starts in the preceding month by 5 percent and the number of housing starts in June, 1948, by 2 percent.

The first six months of this year witnessed 450,800 housing starts as compared with 477,600 housing starts in the first six months of 1948, a decline of about 6 percent. The main reason for this decline is a fall in the number of one-family homes started.

Because of the annual vacation of the University Print Shop this issue of the *Review* is reduced in size. It omits the usual statistical data, which are generally not yet available. We shall be glad to send copies of the missing tables to anyone requesting them. The next issue will contain the usual 12 pages.

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ILLINOIS BUSINESS REVIEW

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Extent of the Prospective Recovery

The "recession" is now generally recognized as an "inventory recession." In May, liquidation of inventories increased sharply. The decline in book values amounted to $1.2 billion — only part of which could be explained in terms of seasonal factors and price movements. June figures are likely to show an even sharper drop.

The drive to liquidate took hold first among the retailers. Orders were cut quickly, but it took several months to stop accumulating. In that period, there tended to be a shifting of inventories from distributors to manufacturers and from later to earlier stages of manufacturing, a shift well illustrated by developments in rayon. By the second quarter, however, production had been cut back to a point well under consumption; so inventories began to move out rapidly.

For the second quarter as a whole, book values may be down about $2.5 billion on a seasonally adjusted basis — an annual rate of about $10 billion. Since prices have declined only gradually, most of this — perhaps $6 billion — represents real liquidation. Hence, from the fourth quarter of 1948, in which accumulation was at the rate of $4 billion, to the second quarter of 1949, there was a swing of $10 billion on account of business inventories. This amounted to two-thirds of the total decline in the gross national product, which fell from $265 billion to about $250 billion. Since a $10 billion swing in inventory investment would normally produce a larger decline in the total, the sustaining influence of other factors is reflected in these changes.

Approaching the Turn

Today there are signs that the rate of liquidation has reached its peak. Efforts to liquidate are continuing, of course, and seem likely to continue for several months at least; but, in some lines, there has already been a reduction of pressure. In lead and copper, for example, fabricators have had to come back into the market to replenish working stocks. Segments of the textile industry also indicate the beginnings of a reversal. Revival in lines that have already passed the peak of liquidation will offset further declines in others where liquidation is still increasing.

Activity responds quickly to changes in inventory policy; but when the rate of change is stable, it quickly ceases to affect production. Specifically, when inventory liquidation is no longer increasing, this factor is no longer forcing production down, even though inventories are still being liquidated rapidly. Thus, if recent easing of pressure is taken at face value, it would appear that the recession is already about ended.

We may bump along near the lows for a while, but there is nothing in the picture to drive activity much lower. Residential construction has made a strong recovery, with new housing starts in June back at the record high. The decline in new plant and equipment expenditures has been more moderate than expected; and, as the special article in this issue indicates, the forecast does not suggest any abrupt acceleration.

Again, when the peak of liquidation is reached, inventory changes become a potentially favorable force. The factors that usually force the dumping of inventories are sharply falling prices and shaky credit. Neither of these is important in the current situation. Considering, in addition, that inventories were relatively low at the outset and that the rate of liquidation has been unusually rapid, it seems probable that normal buying will be resumed within several months at the most.

Recovery Prospects

Since there is no other factor likely to produce an offsetting decline of comparable magnitude, at least some measure of recovery will occur when inventory liquidation ceases; for the cessation of inventory liquidation is not merely an easing of deflationary pressure, it is a positive force on the upside. Liquidation can come to an end only as production is brought up into line with consumption. For this to happen, no one has to expect recovery; business merely has to decide that inventories are low enough. When it happens, recovery will be under way.

The question then becomes: How far will the recovery go? As production is stepped up to prevent further reduction of inventories, other factors will not stand still. Consumers' income will increase and their expenditures will move up to a correlative degree. The extraordinary first-quarter decline in consumer expenditures stands as a kind of aberration, or unique event, like the exceptionally high rate of spending in the second quarter of 1947. Today consumer expenditures are again near normal in relation to income; and they may now be expected to move in line with income, as they typically have in years past.

The steady upward trend in government expenditures will also be felt, and its effects will be more apparent when it is no longer overshadowed by large inventory liquidation. Business expenditures for new plant and equipment will also respond to the new upsurge in activity. Projects that have been postponed will be reinstated, checking tendencies toward further decline.

The quickening of income flows and sales will in turn emphasize deficiencies in inventories; and, in all probability, business policy will be directed not merely toward preventing further declines but toward renewed accumulation. Such accumulation need not again go as high as in earlier postwar periods to make a definite contribution to the recovery.

All this suggests that the recovery will be substantial, and not merely a minor interruption of a downward trend. With government expenditures up more than enough to offset declines in private investment, with construction continuing at boom rates, and with consumers spending a normal proportion of their income, the high of $265 in gross national product is likely to be reached again before the middle of 1950.

AUTOMATIC MERCHANDISING

Illinois leads the nation in the production of automatic vending machines. Last year a total of nearly 50 Illinois concerns were engaged in the manufacture of automatic merchandisers and accessories. In surveying these firms, the 1947 Census of Manufactures classified some, including manufacturers of machines vending refrigerated beverages and ice cream, with other industries. In the Census industry group classified as manufacturing coin-operated machines, 29 of the 73 establishments in the United States were in Illinois, and they accounted for over 80 percent of the $57 million total value of shipments. Although the majority are in Chicago, vending machine manufacturers are also located in Morris, Cicero, Bloomington, Aurora, Franklin Park, and Peoria.

Coin-operated mechanisms have become an increasingly important means of selling. Although a coin-operated device for distributing holy water was used in Greece about 200 B.C., the idea did not appear again until the early 1800's when vending machines were used to distribute tobacco in London coffeehouses. The beginning of the era of automatic vending in the United States is said to have been in 1888 when Adam, an American gum manufacturer, bought a European machine for vending penny gum. Machine vending of gum, candy, and nuts soon became popular and the industry started to expand, but it was not until 1945 that its greatest progress began. By 1947 the national product value of vending machines had increased 235 percent over the $17 million value reported by the industry in 1939.

The Economics of Coin Vending

The coin-vending industry is now in a period of rapid expansion: new refrigerating methods and coin change units have increased the number of products adaptable to coin vending, and recorders are available which register all transactions and make it unnecessary to count coins.

Automatic merchandisers cost from $25 to $2,500 and are designed to supplement personal selling, not replace it. Vending machines are intended to provide extra outlets for small, self-selling items which are usually consumed immediately. Only low-priced, widely demanded convenience goods can be successfully sold by machines. Automatic venders are usually owned by their operators, who obtain the goods and do the servicing. A majority of the operators are small businessmen; fewer than 100 automatic vending businesses own more than 500 coin venders each, excluding penny machines.

Good locations are the fundamental requirement for successful vending, and rent is paid to the location owner for the privilege of placing the machine on his property. The best locations are those with a large amount of traffic, such as office buildings, theater lobbies, and transportation terminals.

The nation's 2 million automatic merchandisers vended more than $1 billion worth of goods last year. As secondary methods of distribution making impulse sales that would usually otherwise be lost forever, these machines sell a substantial percentage of the national output of many of the products they vend.

Commodities Sold by Machine

Candy, beverages, and cigarettes are the pioneer products sold by automatic vending, and these three items alone accounted for half of the machines in use last year. Automatic merchandising has created a tremendous extra market for candy. Total candy sales from vending machines in 1948 are estimated at $161 million, and the 300,000 candy bar machines then in operation vended over 12 percent of the nation's total output. Almost all of these machines were manufactured in Illinois.

Most of the machines vending bottled drinks are operated by bottling plants, and over 70 percent of the 275,000 bottled beverage machines in the United States last year were owned by Coca Cola. Cup-type machines are fairly new, but have been successful only in locations with a great deal of traffic. Although they eliminate bottle-handling and frequent servicing, there were only 15,000 cup-type machines in operation last year. The eight Illinois firms manufacturing cup-type venders accounted for more than half of the total production of this type of machine. Of all the major products suitable for automatic vending, soft drinks seem to have the greatest potential, even greater than candy and tobacco.

Approximately 15 percent of all cigarette merchandising is done through vending machines. Last year 2.5 billion packs of cigarettes were sold by the nation's 325,000 cigarette machines. Automatic tobacco vending has been used not only to meet the impulse sales market, but to protect cigarette inventories.

Automatic coffee and ice cream venders are increasing in popularity. Ice cream machines have the advantage of handling a variety of products, including ice cream cups, bars, and sandwiches. At the end of 1948 there were 2,000 coffee venders in operation. Two of the three firms engaged in their manufacture were in Illinois. The discovery of coffee solubles has given the vending of coffee, the most popular beverage in the United States, a bright future.

Among the newer miscellaneous products now being machine vended are French-fried potatoes, perfume, biscuits, fresh flowers, and hosiery. One of the New York La Guardia airport vending machines sells as many as 100 pairs of nylon hose a day. Other automatic merchandisers, classed as service venders, deliver personal items such as toothbrushes, razor blades, vitamin pills, and aspirin.

Tomorrow Americans may expect to see machines selling such products as dried and frozen foods, canned goods, bread, cheese, soap, cosmetics, and gasoline. Plans have already been made to utilize lobby space in apartment houses for such items as candy, cigarettes, frozen foods, cereals, and milk. It has been said that automatic merchandising today is in the same position as self-service retailing 15 years ago, and that it is destined to be a major factor in the distribution of many of the nation's commodities.

KNOW YOUR STATE

RECENT ECONOMIC CHANGES

Construction Volume Up

New construction in the first half of 1949 rose to a peak $8.5 billion, according to the Department of Commerce. This year's volume was $300 million, or 4 percent, higher than the previous record set last year. Private expenditures totaling $6.2 billion were down 5 percent from the first half of 1948, whereas expenditures by public agencies rose 37 percent over 1948 to $2.2 billion. Public utility construction rose 11 percent in June, primarily as a result of increased expenditures by privately owned gas and electric companies.

Housing Aids Provided

Two bills designed to provide more housing in the next few years have been passed by Congress. One, aimed primarily at increasing private housing construction, authorizes government purchases of mortgages from private lenders on houses costing $10,000 or less up to a total of $1.5 billion, an increase of $500 million over the amount previously allowed. The other, aimed at public housing, provides chiefly for the construction by governmental agencies of 810,000 public housing units by mid-1955. Other clauses of the bill provide for Federal rent subsidies for 40 years on the units constructed, for slum clearance, and for research designed to improve housing and to lower costs. The slum-clearance program, to be undertaken in conjunction with local units, is to be financed by loans totaling up to $1 billion and grants up to $500 million.

Consumers' Expenditures and Savings

The Department of Commerce has reported that retail sales during June continued fairly level, dropping only 1 percent from May to $10.7 billion. A small rise in durable goods sales to $3.4 billion was a little more than offset by the decline in nondurable goods sales to $7.3 billion. Increased sale of automobiles accounted for half the increase in sales of durables. It was pointed out further that retail sales in the first half of 1949 have remained on a level approximately 330 percent of the 1935-39 average, the seasonally adjusted index ranging only about 1 percent over the six-month period.

With retail sales remaining steady only slightly below last year's level, and personal income for the first five months of 1949 about 3 percent above the corresponding period of 1948, personal savings have been increasing. The SEC reports that liquid savings in the first quarter were increased by $600 million in contrast to a decrease of $600 million in the first quarter, 1948. The Treasury Department has reported that holdings of Series E bonds increased $550 million during the first half of 1949 to a total of $33.1 billion on June 30.

Industrial Profits Down

A recent survey made by the Securities and Exchange Commission and the Federal Trade Commission indicates that manufacturing profits in the first quarter of 1949 were down about 15 percent, or $400 million, from the corresponding period of 1948; the decline from the last quarter of 1948 was estimated at $550 million, about equal to Commerce Department estimates of inventory losses. Sales reported in the survey showed their customary first-quarter decline, down $3.8 billion to $39 billion, but were substantially the same as in the first quarter of 1948. Corporate working capital during the first quarter rose $1 billion to a new peak of $65.8 billion, a decrease of $1.7 billion in current assets being more than offset by a decline of $2.7 billion in current liabilities.

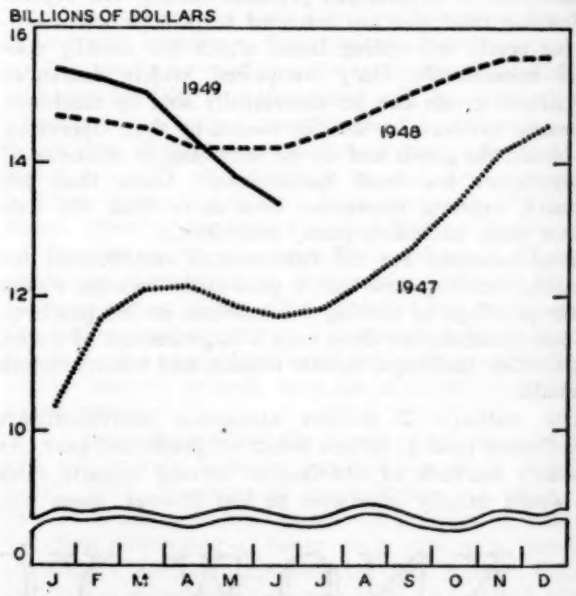
Corporate Financing in 1948

An analysis of methods of corporate financing published in the June *Federal Reserve Bulletin* shows that large corporations in 9 out of 14 major industries financed more of their investments (including plant, equipment, inventories, and credit to customers) from retained earnings in 1948 than in 1947. This trend was most noticeable in the rubber, chemical, and communications industries. Internal sources provided more than half of needed funds in all but three of the industry groups. The extensive financing from internal sources was made possible by higher net profits after taxes, which were up one-third from 1947; a decline in the proportion of profits paid out in dividends, from 50 percent in 1947 to 44 percent in 1948; and increased depreciation allowances. The increase in internal financing was coupled with a shift to fund-raising through use of long-term obligations such as bonds, notes, and mortgages, and a decline of about one-fourth in the use of bank credit and sale of stock.

Business Loans Continue Down

Loans to business firms and farmers, which have been declining on a weekly basis since mid-January and on a monthly basis since December, continued to decline in June. As shown in the accompanying chart, business loans have declined from December's peak of $15,567 million to $13,351 million in June, a drop of 14 percent. It may be seen from the chart that loans have now fallen below last year's level, and are headed below the late-1947 level as well. Federal Reserve officials point out that the decline has not been caused by any shrinking of funds available, but rather by decreasing demand. The liquidation of excessively large inventories, mainly at the retail level, has been important in the reduction of financing needs.

BUSINESS LOANS



Source: Federal Reserve Board.

BUSINESS BRIEFS

PUBLICATIONS AND DEVELOPMENTS OF BUSINESS INTEREST

Market Research

Robert Ferber, Research Assistant Professor in the Bureau of Economic and Business Research, is the author of a new book entitled *Statistical Techniques in Market Research* (McGraw-Hill, New York, $6.00). Designed to describe to marketing students and analysts the latest and best statistical methods, the book is noteworthy for its nontechnical approach and practical applications, illustrating techniques with examples from actual marketing data. Because of the author's success in translating into words the mathematics involved in statistical research, the book should be especially useful to people without advanced mathematical training.

Rubber Highway

Workmen have begun the construction of the first natural rubber highway in the United States over a one-mile strip between Richmond and Charlottesville, Virginia, on heavily traveled Route 250. The new highway will provide the first opportunity to compare a natural rubber highway with a similar highway of synthetic rubber laid in Akron, Ohio, last year. Natural rubber roads originated in 1936 in Holland, where they were still in good condition after a decade of use. The advantages of the new type roadbed are said to be reduced maintenance costs, longer durability, excellent non-skid properties, and greater water resistance.

New Steel Method

The direct reduction of iron ore into liquid ferrous metal has been achieved by Pluro, Inc., now starting the commercial development of the process which it plans to license to prospective users. The new process, which is supposed to be a time and cost saver, involves blowing iron in powdered form by means of nitrogen into a hydrogen atmosphere furnace. The company believes that almost any kind of alloy steel can eventually be made by mixing iron and alloying materials in powdered form. The process could be especially valuable in areas without blast furnace materials.

Developing New Products

A new book published by the Department of Commerce, *Developing and Selling New Products,* outlines a series of practical steps toward selecting and marketing new products. Available at the Chicago office of the Department of Commerce (25¢), the book describes methods of developing ideas for new products, and the selection and preparation of a new product for the market. The value of market research is stressed as a useful tool in product designing, naming, packaging, and testing. The concluding chapter is devoted to a listing and description of numerous Department of Commerce and Patent Office aids for the development and marketing of a new product.

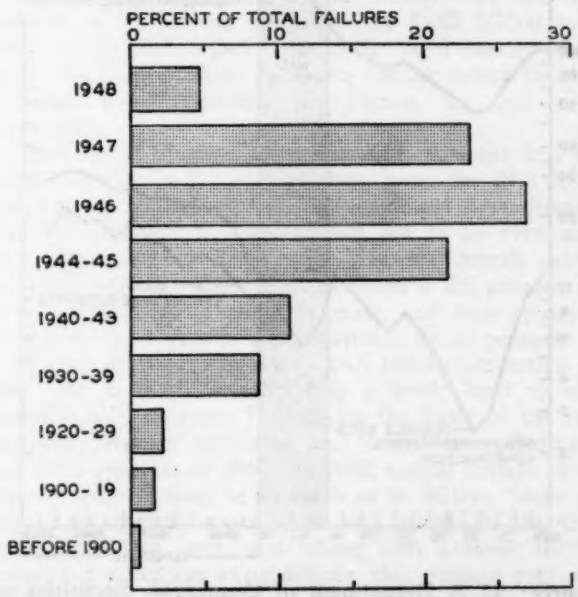
Illinois Climate

The University of Illinois Agricultural Experiment Station has published an abridged edition of *Climate of Illinois,* a bulletin which summarizes and analyzes the State's long-time weather records. In the discussion of the main causes of climatic conditions — precipitation and temperature — maps and graphs are used to show both the seasonal and the geographical distribution of these two factors throughout the State. Some of the records in the bulletin go back nearly 100 years; used together, they show seasonal and yearly variations in all parts of Illinois and emphasize its diversity of climate. The records also refute the opinion of a number of people that climate and weather conditions in this area have been steadily changing over the past 50 years.

Business Failures

A Progress Report on New Business Enterprises in the United States, a recent publication of Dun and Bradstreet, Inc., reveals a surprisingly low number of business failures last year. Based on Department of Commerce and Dun and Bradstreet statistics, the study reports on business failures among retailers, wholesalers, and manufacturers, but does not include the additional firms which went out of business for various other reasons. Although failures have been increasing since 1945, the 5,252 commercial failures in 1948 were far less than the 13,600 reported in 1940, despite a 77 percent increase in the total number of firms in operation over the eight-year interval. Data on the age of firms were available for 83 percent of the total failures occurring last year; and, as shown by the chart, most of the firms had been in business a relatively short time. Almost 70 percent had begun operation since 1945, and 90 percent since 1939. A few were started in 1948 and didn't even last out the year. The figures indicate that the danger of business failure is greatest during the first few years of operation. The large number of new ventures during good times is one reason why business failures occur even in the most prosperous years.

1948 BUSINESS FAILURES, BY YEARS FAILING FIRMS WERE ESTABLISHED



Source: Dun and Bradstreet, Inc.

CAPITAL EXPENDITURES IN THE POSTWAR ECONOMY

ROBERT FERBER, Research Assistant Professor

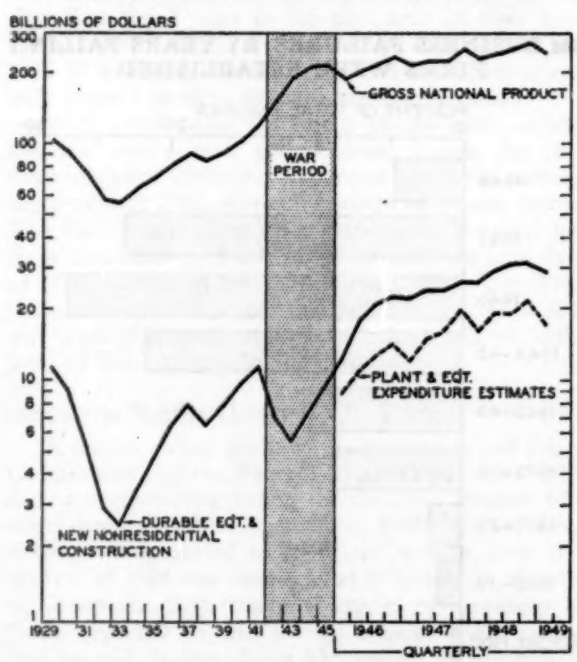
In the study of business cycles, consumption is generally taken to be the passive element and investment its volatile partner. People have to consume to live, and this basic need limits the extent to which consumption can vary. But investment — the addition to the total stock of productive assets — is not subject to such constraints and is free to vary within almost any limits subject to the restrictions imposed by the productive process. Hence fluctuations in investment expenditures are the basic cause of the business cycle.

Whether or not this point of view is accepted, there is no denying the close relationship between our gross national product — the market value of goods and services — and business expenditures for new plant and equipment, as is shown in Chart 1. The latter series is derived as the sum of the durable equipment and new private nonresidential components of the gross national product.

Chart 1 is drawn on a so-called logarithmic scale, so that equal percentage changes in both series are shown as parallel lines, irrespective of the magnitudes involved. Expenditures for new plant and equipment constitute the bulk, over 70 percent, of private domestic investment. The other major elements in investment are inventories and housing.

Although plant and equipment expenditures rarely exceed 15 percent of gross national product, the movements of the two series correspond almost perfectly, with the exception of the war period when investment was restricted in favor of war production. The investment series is the more variable, increasing relatively more than gross national product on the uptrend and falling more on the downtrend. This is only to be expected, as about two-thirds of gross national product, on the average, consists of relatively more stable consumption expenditures.

Chart 1 — GROSS NATIONAL PRODUCT AND BUSINESS CAPITAL EXPENDITURES



Source: U. S. Department of Commerce; Securities and Exchange Commission.

Forecasting Investment

In view of the remarkably close relationship illustrated by Chart 1, an indication of future trends should be obtainable if it were possible to forecast investment expenditures. One obvious approach to determining businessmen's future actions is to ask them, and this is what the Department of Commerce, in cooperation with the Securities and Exchange Commission, is doing today. This is not the only survey of business investment plans — somewhat similar surveys are made by McGraw-Hill, by Dun & Bradstreet, and by *Fortune* — but it is the most comprehensive and is the only one on a quarterly basis.

About eight weeks before the beginning of each quarter, 1,000 large corporations registered with the SEC and about 2,200 unregistered corporate and noncorporate firms are asked to report the amounts they plan to spend for new plant and equipment during the coming quarter. By "blowing up" these figures to account for the firms that do not report, the Department of Commerce-SEC analysts arrive at initial over-all estimates of planned business expenditures for new plant and equipment. These figures are later revised on the basis of new estimates for the same period obtained at about the middle of the quarter, when much is already known about changes in investment. Both the original and revised estimates are subsequently checked against actual figures, which are obtained from the firms about a month after the end of the quarter.

The series derived in this fashion is completely independent of the total new plant and equipment expenditure figures included in the gross national product. It excludes capital outlays in agriculture and capital expenditures charged to current account. In addition, the total new plant and equipment expenditure series is compiled from other data, such as construction activity and reports of machinery and other equipment production.

The sample series on new plant and equipment expenditures is depicted by the dashed line on Chart 1 beginning with 1946. The fluctuations of this series closely parallel those of total plant and equipment expenditures and of gross national product itself. The only noticeable difference is caused by the pronounced seasonal influence affecting the sample series in the first and fourth quarters of the year. Hence, with adjustment for this effect, the sample series would appear to be a reliable measure of general investment trends.

Accuracy of the Forecasts

Since 1947, when these estimates were first published, the initial quarterly estimates of total new plant and equipment expenditures by business have come, on the average, within 7.5 percent of the final figure, and the revised estimates have averaged within 5.4 percent of actual expenditures. However, as is shown in the table, at times estimates have missed the mark by over 10 percent; and this is true even for the revised estimates. Particularly surprising is it that in three of the eight quarters where comparison is possible, the initial estimate has proved more accurate than the revised estimate.

One thing this table brings out is the innate tendency of businessmen to discount the future. In no quarter has a preliminary estimate as much as equalled actual expenditures. This seems to be particularly true of the fourth quarter; business initially underestimated this quarter's expenditure by 19 percent in 1947 and by 13 percent in 1948. The same cautious tendency is not true of the revised estimates, which are made three months later and midway through the period to which they relate.

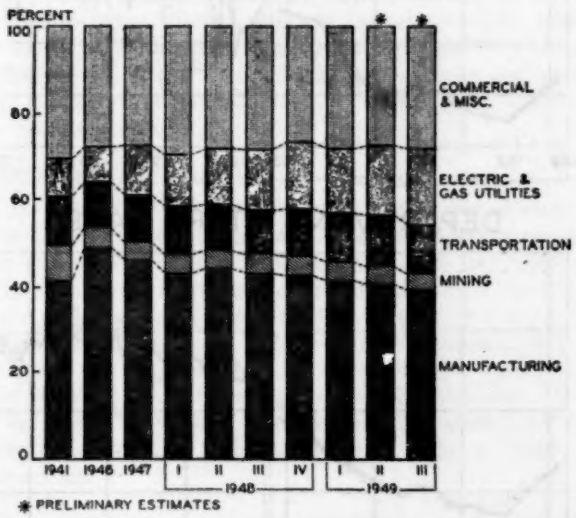
ESTIMATED EXPENDITURES FOR NEW PLANTS AND EQUIPMENT AS A PERCENTAGE OF ACTUAL EXPENDITURES

Year	*Quarter*	*Initial Estimate*	*Revised Estimate*
1947	1		108.9%
	2	90.3%	93.2
	3	91.1	98.3
	4	81.4	89.9
1948	1	98.3	107.4
	2	99.4	97.5
	3	94.6	102.5
	4	86.7	92.6
1949	1	98.4	104.9
Average deviation from 100%, excl. first quarter, 1947		7.5	5.4

Estimates are also made for each of six major industry groups — manufacturing, mining, railroad, other transportation, electric and gas utilities, and commercial and miscellaneous, but the accuracy of these estimates varies considerably from one group to another. A consistent tendency has appeared to overestimate transportation expenditures by as much as 20 to 25 percent, and to underestimate manufacturing, mining, and other expenditures, frequently by margins of 10 percent and more. Utility estimates have tended to be most accurate, averaging within 8 percent of the actual figure initially and within 5 percent for the revised estimate.

Though the estimates for individual industry groups do not seem to be too reliable as yet, some sort of statistical providence apparently sees to it when the industry estimates are combined, cancellation of opposite errors takes place leaving an over-all estimate more accurate than most of the individual estimates.

Chart 2—RELATIVE DISTRIBUTION OF CAPITAL EXPENDITURES BY INDUSTRY



Source: U. S. Department of Commerce; Securities and Exchange Commission.

Whether the accuracy of the estimates will improve later is a question that only time can answer. More sharply defined changes in business activity may produce more frequent changes in investment schedules. On the other hand, in a more normal period, business firms may have better control over their capital expenditures than was possible in the immediate postwar period. Thus, a large part of the overestimates of railroad expenditures in 1947 and 1948 occurred because orders were not filled on schedule, so that certain expenditures could not be made.

There is also the possibility of adjusting the rough estimates for any consistent bias in the data, such as seasonal influences. So far the Commerce-SEC analysts have been unable to do much along this line because of the relatively short period of time involved. But once these estimates have been prepared over a period of years, refinements should be possible.

The Outlook

Essentially, these new data on investment expenditures fulfill a double purpose. First, the final figures provide for the first time short-run data on capital outlays by industry groups. Thus, Chart 2, the relative distribution of investment expenditures for selected periods since 1941, shows that the manufacturing and commercial and miscellaneous groups have been declining in relative importance during the postwar years, while mining and transportation have remained fairly steady and utilities outlays have been rising to the point where their relative importance has doubled compared with 1941. The quarterly figures for 1949 reveal that the relative growth in the outlays of utilities continues, whereas investment expenditure of manufacturing and transportation enterprises is declining in importance. The same conclusions are obtainable from private construction estimates made by the Department of Commerce.

Second, the investment forecast data provide valuable clues as to future business trends. Thus, on the basis of previous relationships the business outlook for the second half of this year would appear to be much brighter than the preliminary forecasts seem to indicate. The initial estimate of $4.63 billion capital outlays for the third quarter is 3.9 percent less than the $4.82 billion to be spent in the second quarter or in the third quarter of last year. But this makes no allowance for the extent to which business firms discount the future, as was noted previously.

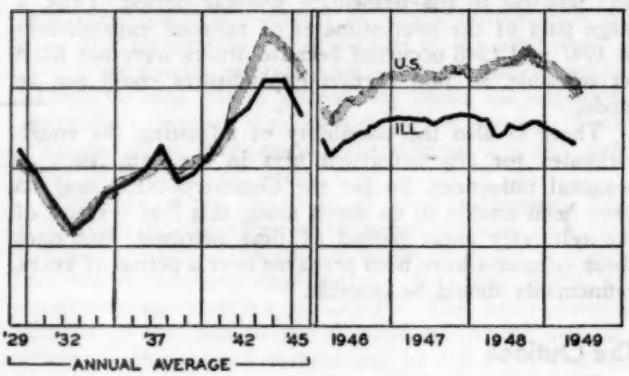
For the third quarter of last year, business had predicted initially a 5.0 percent drop from the $4.8 billion spent in the second quarter. Yet, the actual expenditure in the third quarter of 1948 turned out to be even more than the second-quarter figure. For the fourth quarter of 1948, business cautiously predicted a 2.6 percent rise over its previous quarter's estimate, and then proceeded to top its third quarter's expenditures by 12 percent.

Hence, the third quarter's $4.6 billion prediction for this year is most probably only a lower limit to what actually will be spent. Judging on the basis of the relationship between estimated and actual expenditures in the third quarters of 1947 and 1948, capital outlays in this current quarter may be as much as $5 billion. Since this would be slightly more than was spent in the third quarter of last year, and taking into account the increased government expenditures, this autumn may well mark the end of the current decline in economic activity.

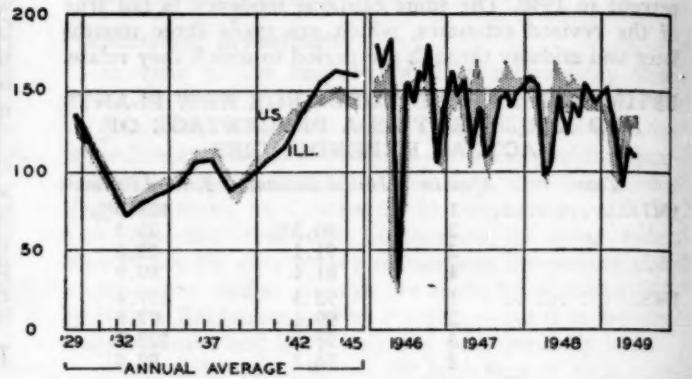
INDEXES OF BUSINESS ACTIVITY

1935-1939 = 100

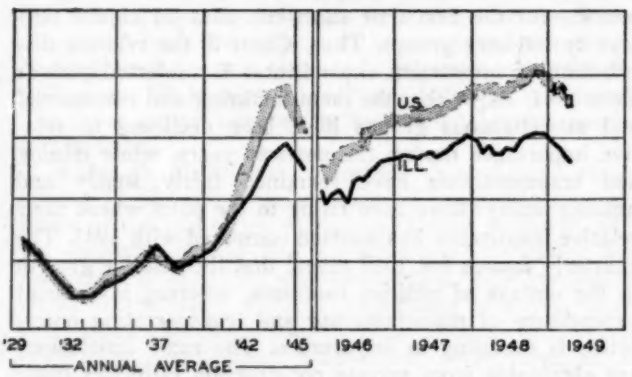
EMPLOYMENT–MANUFACTURING



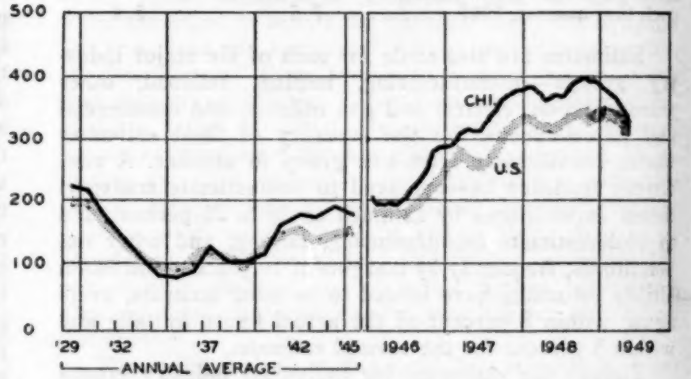
COAL PRODUCTION



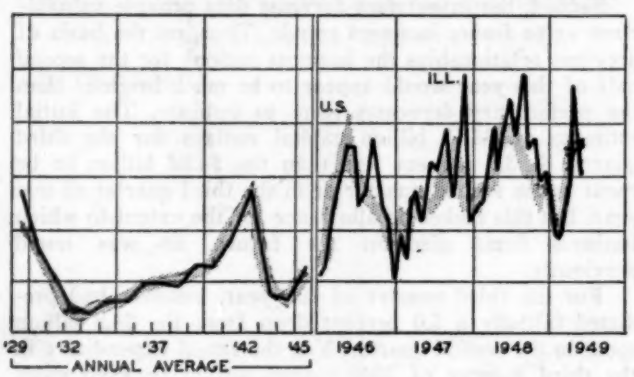
PAYROLLS–MANUFACTURING



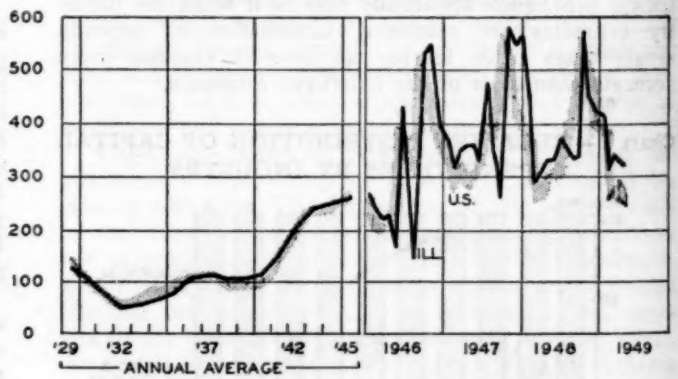
BUSINESS LOANS



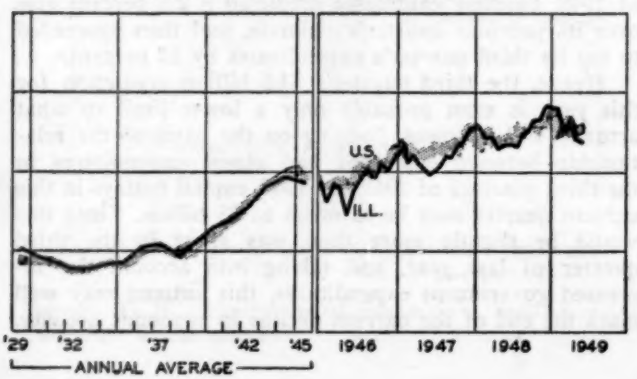
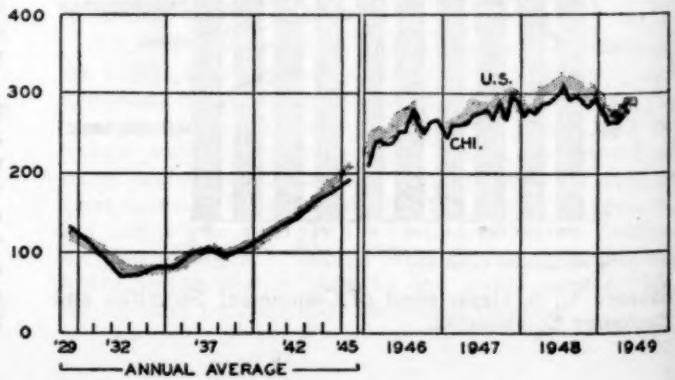
CONSTRUCTION CONTRACTS AWARDED



CASH FARM INCOME



ELECTRIC POWER PRODUCTION



DEPARTMENT STORE SALES